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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/516,327	03/01/2000	Paul S Prevey III	LRI-004PAT	3718

7590 12/26/2002

Mark F. Smith  
SBTechnology Law  
7577 Central Park Boulevard  
Suite 102  
Mason, OH 45040

EXAMINER

MARTIR, LILYBETT

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 12/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.	09/516,327	Applicant(s)	PREVEY, PAUL S
Examiner	Lilybett Martir	Art Unit	2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 01 October 2002.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-11 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.      4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other:

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prevey III (Pat. 5,826,453). Prevey III teaches the claimed method including:

- With respect to claim 1, Prevey III teaches selecting a region of the part to be treated (Col. 8, line 55) and exerting pressure against the surface of the selected region (Col. 2, line 62). Prevey III fails to literally disclose the pressure being applied such that the magnitude of compression decreases in the direction towards the boundaries of the selected region to minimize the effects of any tensile stress zones near the boundaries. One of ordinary skill in the art would have readily recognized the advantages and desirability of applying a pressure in a way such that the magnitude of compression decreases in a predetermined way on a selected region since the claimed process is a result of *selecting a predetermined pattern* following the previous teachings of Prevey (Col. 4, lines 6-10 and Col. 5, lines 4-12) by making it suitable to or fit for a specific use or situation without departing from the scope of his invention for the purpose of making said method versatile and adaptable.

- With respect to claim 2, Prevey III teaches exerting the pressure against the surface of the part by a burnishing operation (Col. 8, line 57).
- With respect to claims 3 and 10, Prevey III teaches a burnishing operation that induces a deep layer of compression within the surface having associated cold working of less than about 5.0 percent as disclosed in Col. 8, lines 57-60.
- With respect to claims 4 and 11, Prevey III teaches exerting the pressure on the surface by inducing a deep layer of compression within the surface having associated cold working of less than about 3.5 percent (Col. 8, line 60).
- With respect to claim 5 Prevey III teaches the step of selecting the magnitude of compression by programming a control unit to automatically reduce the magnitude of compression (Col. 3, lines 37-40) in the direction towards the boundaries of the selected region.
- With respect to claim 6, Prevey III teaches in the step of exerting pressure against the surface of the selected region the step of programming a control unit to control the application of the pressure (Col. 3, lines 33-35).
- With respect to claim 7, Prevey III teaches a burnishing operation that includes varying the burnishing density along the the selected region (Col. 2, lines 57-60).
- With respect to claim 8, Prevey III teaches a part being selected from the group consisting of automotive parts, aircraft parts, marine parts, engine parts, motor parts, machine parts, drilling parts, construction parts and pump parts (Col. 4, line 4).
- With respect to claim 9, Prevey III teaches selecting a region of the part to be treated (Col. 8, line 55) and programming a control unit of a burnishing

apparatus to perform a burnishing operation (Col. 3, lines 4-8), the burnishing operation being performed such that the density of burnishing and the magnitude of compression are varied to reduce the high tensile stress zone along the boundaries of the selected region (Col. 2, lines 57-60).

***Response to Arguments***

3. Applicant's arguments filed on October 1, 2002 have been fully considered but they are not persuasive. Regarding applicant's arguments about Prevey III not teaching or suggesting less deformation of a surface towards the boundaries of a selected region, the teachings of Prevey, III (Pat. 5,826,453) do disclose and suggest the claimed invention since the application of a force to any surface using the burnishing apparatus with a burnishing ball such as in element 114 produces a surface deformation with less deformation of the surface toward the boundaries of the selected region if a desired path or a predetermined pattern of burnishing selected is applied. The claimed invention merely results from the realization of slight changes to Applicant's previous invention without departing from the scope of the previously Patented invention, where he clearly discloses the application of predetermined compressive forces to a specimen or part (Col. 4, lines 6-10) where the burnishing is applied in a predetermined pattern (Col. 5, lines 4-5). It can be concluded that the density and/or direction of the burnishing obviously results and is defined by the predetermined pattern that is followed during the process of burnishing.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

5. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilybett Martir whose telephone number is (703)305-6900. The examiner can normally be reached on 9:00 AM to 5:30 PM.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703)305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3432 for regular communications and (703)305-3432 for After Final communications.

8. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

  
HEZRON S. WILLIAMS  
EXAMINER  
ART UNIT 2855  
DECEMBER 20, 2002

Lilybett Martir  
Examiner  
Art Unit 2855

  
December 20, 2002